Analysis of Webpages in CACREP-Accredited Counseling Programs

Yuh-Jen Guo
Shu-Ching Wang
Shelly R. Statz
Craig Wynne

Growing individual access to the Internet helps universities take advantage of academic webpages to showcase unique characteristics and recruit prospective students. This study explored how the Council for Accreditation of Counseling and Related Educational Programs (CACREP) accredited counseling programs have utilized their program webpages for similar purposes. Results indicate many deficiencies existing in the contents of webpages hosted by CACREP counselor education programs.

Keywords: CACREP, accreditation, webpages, internet, counselor education

The world is moving to the rhythm of the Internet at a very fast pace. Thirty percent of the world population connects to the Internet, 78.3% of the North American population is online, and the usage of the Internet has increased 480.4% in the past 10 years (Miniwatts Marketing Group, 2011). In 2010, the Internet surpassed the television as the "essential medium" (Edison Research, 2010), whereas social network websites connected 77% of the population 18–24 years old (Edison Research, 2010). Webpages have become the virtual venue of information inquiry and socialization.

The counseling profession also rode the surge in Internet technology. Sampson, Kolodinsky, and Greeno (1997) foresaw several potential uses of the Internet in counseling. The marketing and delivery of various counseling services online, as well as supervision and research were identified by these authors as emerging areas for online counseling practices. To date, career exploration (American College Testing, n.d.; Sampson, 1999) has been moved from traditional page flipping to web browsing. Counseling has been effectively practiced online in the specialties of career counseling (Gati & Asulin-Peretz, 2011), college counseling (Derek, 2009; Quartoa, 2011), supervision (Chapman, Baker, Nassar-McMillan, & Gerler, 2011; Nelson, Nichter, & Henriksen, 2010), mental health counseling (Heinlen, Reynolds-Welfel, Richmond, & Rak, 2003; Mallen, Vogel, & Rochlen, 2005), self-help groups (Finn & Steele, 2010), and counselor education (Benshoff & Gibbons, 2011; Rockinson-Szapkiw, Baker, Neukrug, & Hanes, 2010).

A prominent feature of the Internet is the information super highway that provides tremendous materials online for information searching and inquiry (Kinka & Hessa, 2008). Universities and colleges take advantage of the Internet and publicize institutional information online through their webpages (Middleton, McConnell, & Davidson, 1999). Students now have the opportunity to access facts about a prospective university and academic program in which they are interested (Poock & Lefond, 2001, 2003). The current functions of university webpages have been extended beyond the online showcase to the active role of public relations (Gordon & Berhow, 2009) and student recruitment (Kittle & Ciba, 2001; Poock & Lefond, 2001, 2003). However, there is a need to increase research on the actual effectiveness of university websites in satisfying the prospective users (Middleton et al., 1999).

Very little attention has been devoted to the study of the use of the graduate counseling programs' webpages (McGlothlin, West, Osborn, & Musson, 2008), even though the use of the Internet has become popular in various aspects of counseling training and practices. McGlothlin, West, Osborn, and Musson (2008) noted the potential capacity

of counseling programs' webpages as online marketing tools and conducted a review of webpages for 187 CACREP-accredited counseling programs. Their results indicated various deficiencies, such as missing CACREP accreditation information. This study reviewed the webpages of all CACREP-accredited counseling programs in order to examine the essential published information and to explore possible deficiencies which may prevent these webpages from being effective marketing tools for prospective students.

Method

CACREP Webpages

All CACREP-accredited counseling programs listed on the CACREP directory page (CACREP, n.d.) were used in this study. It was important to point out that one counseling department could house multiple accredited counseling programs; hence these counseling programs would share the departmental webpages. Few universities had multiple campuses where independent counseling programs were operating. The review criteria was to count each set of webpages for one content review even though there might be two or three accredited counseling programs sharing the same departmental webpages. Counseling programs in different campuses were counted separately when they were listed as different accredited programs on the CACREP directory.

A total number of 220 departmental webpages were reviewed. Within these 220 departments, researchers reviewed webpage contents covering 528 CACREP-accredited counseling programs. There were 42 institutions with 66 CACREP-accredited programs not accessible either from the CACREP directory list or the main institutional webpages. During the research process, multiple attempts to access the webpages of these 66 counseling programs had failed, and these programs were subsequently excluded from this study.

Procedure

A list of CACREP-accredited programs was retrieved from the CACREP directory page (CACREP, n.d.) during the 2009–2010 academic years. This directory provided links to all CACREP program webpages. When the links on the directory were not accurate or up-to-date, online search engines, including Google and Yahoo, were used to access program webpages. This route took researchers to the institutional webpages or the departmental webpages. In some cases, researchers were able to find the counseling program webpages through institutional or departmental webpages. Some program webpages were not able to be located after multiple attempts.

Two graduate students were trained as webpage reviewers. They went over a couple of webpages with researchers to become familiar with the process of reviewing webpage contents and determining the major content categories. One reviewer took an academic semester to examine all program webpages. The first reviewer began with the contents of several program webpages to create a list of major content categories from those webpages. This reviewer then presented the categories, such as "program mission" and "current student," to the researchers. The category presentation was held to verify the efficiency and accuracy of the reviewer. Throughout the review process, the reviewer remained in constant communication with researchers and discussed unclear webpage contents with researchers to determine how to categorize such contents. The second reviewer followed the exact same links to review all CACREP program webpages independently and she compared her review results with those of the first reviewer to verify the accuracy of the recorded data. The second reviewer took another academic semester to complete this task. Both reviewers continued to access the program webpages with broken links on CACREP directory. They tried to locate these webpages through the institutional and departmental webpages. Those inaccessible webpages of counseling programs were excluded from this study.

The major content categories were determined on those common webpage headlines and information grouped in sections or links for prospective users. The common headlines included topics such as program mission and program description. Essential information included sections such as program contact information and the links for current students or faculty and staff. Many universal terms, such as mission and department contact, were used across the majority of program webpages. When reviewers encountered webpage contents they were not certain about how to categorize, they brought these contents to discuss with researchers in order to determine the categories for these contents. Reviewers were counting what common headlines were published on any given program webpages. Either these common headlines were

listed on webpages or they were not. Essential information might contain additional contents that reviewers needed to count the accessible numbers. For example, one program webpage could list seven full-time faculty members, but it only provided three links to access three faculty's publication records. In this case, there would be a "7" on the faculty count and a "3" on faculty publication.

Data Analysis Process

As explained in the procedure and methods section, two types of data were eventually collected in the review process. A set of nominal data was generated from reviewers' examination on common headlines or essential information in webpage contents. The nominal data was coded as "0" and "1" to represent whether or not one headline or information existed on a particular webpage. For example, when reviewers were able to see the mailing address on one webpage, they would mark a "1" on the category of program mailing address. Nominal data could be tallied for total numbers. Another set of data was the interval data acquired by counting the numbers listed under one category. A total of 28 major categories were compiled by reviewers.

A careful examination of these 28 categories allowed researchers to group them into three content domains: program, faculty, and students. Each of the three domains contained a number of categories delivering essential information for that domain. For example, the program domain would contain categories such as mailing address, e-mail address, and mission, which all related to what the program was about. Based on the different qualities of the two data types and the purposes of this study, a descriptive analysis (Creswell, 2008) was selected to describe the data sets. This procedure was used to depict the content quality of the webpages of CACREP-accredited counseling programs and reveal what could be the deficient areas on program webpages.

Results

The review process was able to access 220 program webpages (84%) from a list of 262 departments offering at least one CACREP-accredited counseling program. These 220 departmental webpages contained information for 528 CACREP-accredited counseling programs (88.9%) from 594 programs listed on CACREP directory. A total of 28 categories carrying the essential information were labeled. These categories were grouped into three domains of program, faculty and student based on the types of information presented in the categories. The program domain consisted of categorical information about the counseling program. Information in a program domain aimed to introduce a counseling program to prospective users. The faculty domain contained categorical information aimed to introduce counselor educators to prospective users. The student domain consisted of categorical information which counseling programs provided for prospective and current students, as well as alumni.

Figure 1 represents the results of our investigation on the essential information published on all accessible webpages of CACREP-accredited counseling programs. The data in Figure 1 indicated whether or not a type of essential information was displayed on program webpages and the numbers of counseling programs actually displaying the essential information.
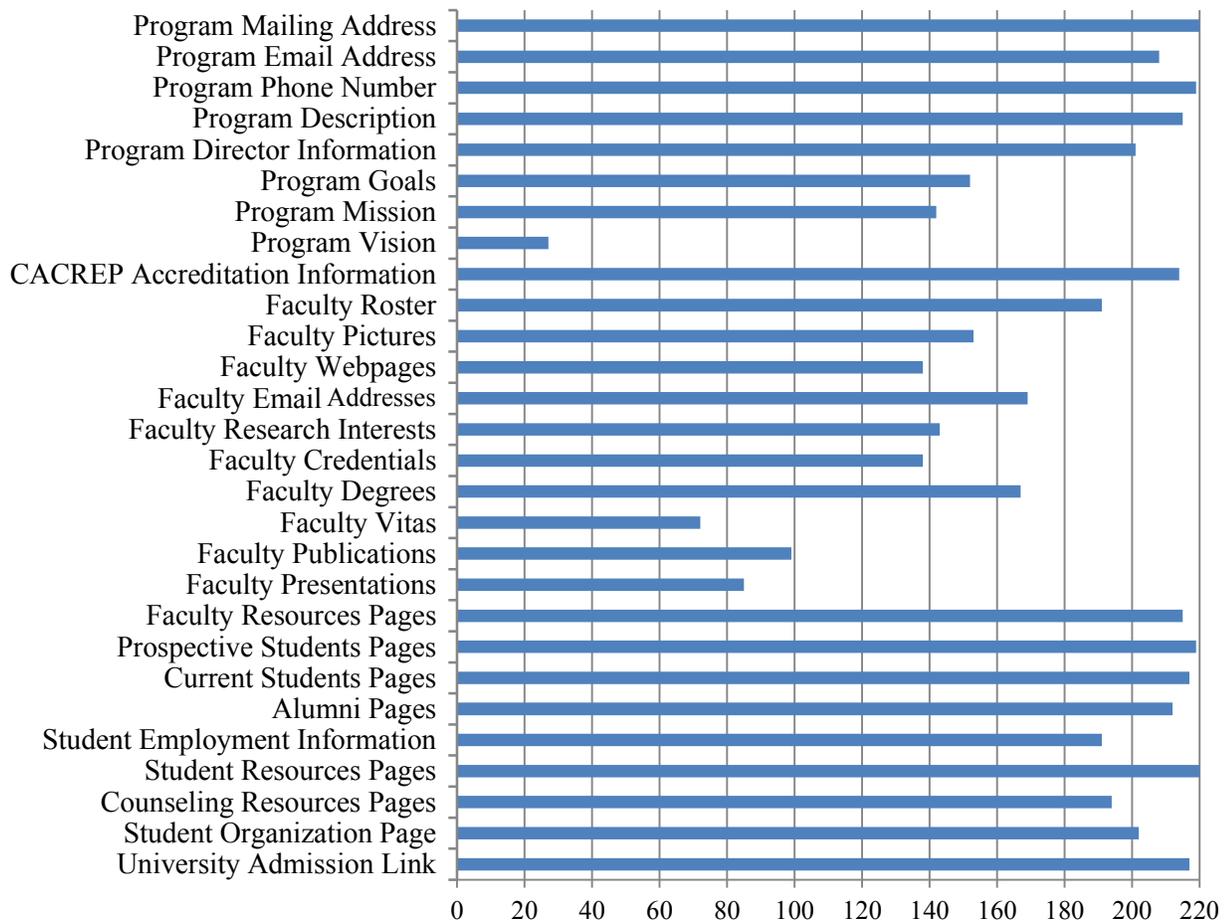
*Figure 1.*Program, Faculty, and Student Information on 220 Program Webpages

Among the 28 major content categories, nine categories were placed under the program domain: (1) program mailing address, (2) program phone number, (3) program description, (4) CACREP accreditation information, (5) program e-mail address, (6) program director information, (7) program goals, (8) program mission, and (9) program vision. Eleven categories were grouped under the faculty domain: (1) faculty resources pages, (2) faculty roster, (3) faculty e-mail addresses, (4) faculty degrees, (5) faculty photos, (6) faculty research interests, (7) faculty webpages, (8) faculty credentials, (9) faculty publications, (10) faculty presentations, and (11) faculty vitas. Eight categories were placed under the student domain: (1) student resources pages, (2) prospective student pages, (3) current student pages, (4) university admission link, (5) alumni pages, (6) student organization page, (7) counseling resources pages, and (8) student employment information.

Among the 28 categories, two categories had a 100% accessibility rate (220 out of 220). The "student resources" and "program mailing address" were accessible on all program webpages. The category of "program vision" had the least accessibility with only 12% found on counseling program webpages. Many categories in the faculty domain appeared to have lower accessibility rates compared to those in program and student domains. Six out of 11 categories of faculty domain did not have high accessibility rates: research interests (65%), web pages (63%), credentials (63%), publications (45%), presentations (37%), and vitas (33%). Only the faculty resources pages had high accessibility (98%).

In addition to the descriptive analysis presented in Figure 1, interval data was collected and tabulated in Table 1. Table 1 displayed the counts on ten categories of the faculty domain. This table compared each category against the total number of counseling faculty listed by 528 counseling programs. There were 1,469 counselor educators listed on the counseling department webpages where the faculty was employed. However, the information in the ten categories of faculty domain did not show an equivalent accessibility across all counseling programs.

Table 1

Faculty Information on CACREP Counseling Program Webpages

Faculty Information Item	Total Number	Available among 220 Program Web Pages	Percentage of Total Faculty Numbers
Faculty Roster	1469	191	100%
Faculty Email Address	1254	169	85.4%
Faculty Degrees	1072	167	73%
Faculty Pictures	1004	153	68.3%
Faculty Web Pages	875	138	59.6%
Faculty Research Interests	702	143	47.8%
Faculty Credentials	522	138	35.5%
Faculty Publications	514	109	35%
Faculty Vitas	337	72	22.9%
Faculty Presentations	326	85	22.2%

The list in Table 1 showed a ranking of faculty information available to online public access. Among the total of 220 program webpages, there were 191 webpages posting faculty rosters which could be used to count the full-time counselor educators in those departments. A total of 1,469 counselor educators were listed as full-time faculty members. Not all categories were available on all 191 program webpages. The third column displayed the numbers of program webpages allowing access to a particular category.

Among the 1,469 counselor educators, there were 1,254 e-mail addresses (85.4%) and 1,072 highest graduate degrees (73%) posted with the faculty names. Faculty photos were found on 1,004 counselor educators (68.3%), but only 875 faculty webpages (59.6%), which were used to present personalized information about counselor educators, were able to be found on program webpages. Counselor educators' research interests were accessible for 702 faculty members (47.8%). A total of 522 counselor educators (35.5%) had displayed the professional credentials or licenses they held. The program webpages only posted the publication records of 514 counselor educators (35%) and professional presentation of 326 (22.2%). Faculty vitas were made available on 72 program webpages with a count of 337 counselor educators (22.9%).

Discussion

Webpages have become a popular media for online information disclosure and exchange (Bateman, Pike, & Butler, 2011; Tapscott & Williams, 2008). The Internet is a crucial technological tool which counseling programs are utilizing. In this study, 84% of counseling departments were accessed and 88.9% of CACREP-accredited counseling program webpages were reviewed. This percentage was close to the number (86%) reported by a previous study (Quinn, Hohenshil, & Fortune, 2002). Most counseling programs, 90% or more, listed their contact information (mailing, e-mail, phone, and program director's contact information) as well as program description (97.7%) and CACREP accreditation information (97.3%) on their webpages. Such findings concurred with results found in a previous study indicating that a high percentage (above 75%) of contact information could be detected on department webpages (McGlothlin et al., 2008). However, our findings endorsed improved display of CACREP information (an increase from 62% to 97.3%) and program description (from 75% to 97.7%). The accessibilities of program goals, mission and vision were all below 69%, with vision being the lowest (12%). Although our findings indicated that program vision was not a common item on department webpages, students should have easy access to contacting a counseling program and identifying whether or not a program

is CACREP-accredited.

Regarding faculty information, the majority of counseling programs posted faculty resource pages (97.7%) and faculty roster (87%). It was noticed that some counseling faculty members were listed within the collegial faculty roster and without a tag to identify who was a member of the counseling faculty. Table 1 also indicated that not every counselor educator had his or her essential information online for public browsing. Among the 1,469 listed counselor educators, students would be able to access the information containing faculty e-mail addresses (85.4%), highest degrees (73%), photos (68.3%), individual faculty webpages (59.6%), research interests (47.8%), licenses and credentials (35.5%), and faculty publications (35%). The lowest percentages of accessibility on faculty information were faculty vitas (22.9%) and faculty presentations (22.2%).

Our findings confirmed the high percentage of faculty contact information and the low percentage of faculty descriptions reported by a previous study (McGlothlin et al., 2008). McGlothlin et al. (2008) reported that 87.7% of webpages contained faculty contact information and 46% contained faculty description. Our study further examined the contents of faculty description and found an uneven and inconsistent style of information disclosure. It was clear that not every listed faculty member displayed all of the following information online: (1) e-mail address, (2) highest earned degrees, (3) photos, (4) personal webpages, (5) research interests, (6) credentials or licenses, (7) publications, (8) presentations, and (9) vitas. These deficiencies may potentially pose difficulties for students who access program webpages for faculty information.

Clearly, counseling programs should provide essential information for past, current and prospective students. Our results indicated that counseling programs had primarily constructed webpages with information for current and prospective students, as well as alumni. These student pages included student resources (100%), prospective students (99.5%), current students (98.6%), alumni (96.3%), and student employment (86.8%). The high percentages of accessibility demonstrated that counseling programs focused more on maintaining webpage information related to students.

Our results concluded that most counseling programs considered the main function of their webpages as a tool to communicate with students due to the high percentage of student-related webpages. On the other hand, information about counseling programs themselves had not been valued equally. The introduction of counseling programs was less focused because the program contact information obtained a high accessibility rate, but the program missions and goals were often omitted. Faculty information appeared to have an even lower emphasis on program webpages. The low accessibility of faculty information was represented by the below 50% display rate of faculty's research interests, licenses and credentials, publications, presentations, and vitas. Our findings suggest that CACREP counseling programs concentrate their web design efforts on enriching student-related pages, but devote less effort on the construction and maintenance of webpages displaying essential information on counseling programs and their faculty. However, this would be a debatable conclusion without further investigation on counseling students' browsing preferences.

Implications

The use of webpages in counseling programs needs more thorough research to determine how to effectively disclose and exchange essential online information to students and the public. Several critical points and questions have been raised from our research that can assist future web design in counseling programs:

1. It is important to determine what essential materials should be disclosed and exchanged on program webpages. A proper web design and the quality of information disclosure are vital criteria for effective webpages (Maddux & Johnson, 1997). Counseling programs have to carefully consider how they want to be viewed on the Internet. Who are the potential viewers of department webpages? What specific information are viewers seeking? Will the information be useful to the viewers and benefit the programs?
2. Webpage marketing must monitor its dissemination of information and web design (Poock & Bishop, 2006). Information posted on webpages should attract viewers' attention and satisfy browsing purposes. Careful consideration of web design can provide easy access to information sought by viewers.
3. Counseling programs need to consider the value of their webpages within the university web structures. When

counseling programs do not have full control of their webpages, their information dissemination and design may lack integrity. Webpage viewers look for fast and effective access to desired information (Poock & Bishop, 2006), and when viewers access program information via college or university websites, they may be discouraged by the lack of quick access.

4. Awareness of cultural factors is necessary for the design of webpages in counseling programs. Maddux, Torres-Rivera, Smaby, and Cummings (2005) repeated a study (Torres-Rivera, Maddux, & Phan, 1999) regarding multicultural counseling-related websites and concluded there were deficiencies on the display of culturally related information. Considerations for the accessibility of disabled viewers are needed since counseling program webpages might contain obstacles that hinder disabled viewers' free access (Flowers, Bray, Furr, & Algozzine, 2002). Since the webpages are reaching an audience beyond offices and campuses, they need to include cultural sensitivity.

5. In addition to online marketing, webpages carry departmental public relations into the virtual world (Gordon & Berhow, 2009). Hill and White (2000) indicated that webpages carry the images of the programs they are representing. It is certainly not a professional appearance when items and information are missing or partially displayed on program webpages. With limited resources, counseling programs need to construct their webpages in a professional manner and formulate the webpages to distribute high quality and thorough information.

6. In light of webpage usage, new features are constantly emerging in web design. Many popular forms of online media, such as *Facebook* and *YouTube,* may certainly enrich the contents of counseling program webpages. For example, the use of images (Vilnai-Yavetz & Tiffere, 2009) and video (Audet & Paré, 2009) on webpages achieves specific advantages for viewers. In addition to information dissemination, the communication feature of webpages also is important to web design (Gordon & Berhow, 2009; Kent & Taylor, 1998). This feature allows viewers to communicate with the programs and receive timely feedback (Kent & Taylor, 1998). Counseling programs should consider incorporating these advanced features into their program webpages to better reach viewers.

It is important to make sure that webpage viewers will be able to access desired information easily on departmental webpages. Future research efforts should focus on what essential information should be displayed on counseling program webpages, as well as the satisfaction of program webpage users.

Limitations

It is important for readers to realize the potential limitations for interpretation and generalization of these research results. Webpages are frequently changed and upgraded. Subsequent improvements and revisions may dramatically change the outlook of the reviewed webpages. Our assessment should be considered a "snapshot review" since our project intended to produce a "one-shot" quantitative measurement of counseling program webpages. Less attention was paid to the quality of contents and the methods and services for information disclosure, such as video clips, and information exchange, such as message boards. Further studies on the effectiveness of various web design tools and features among counseling program webpages should be able to provide more in-depth information on effective counseling program webpage designs.

References

American College Testing. (n.d.). *Discover.* Retrieved from http://www.act.org/discover/index.html

Audet, C. T., & Paré, D. A. (2009). The collaborative counseling website: Using video e-learning via Blackboard Vista to enrich counselor training. In G. R. Walz, J. C. Bleuer, & R. K. Yep (Eds.), *Compelling counseling interventions: VISTAS 2009* (pp. 305–315). Alexandria, VA: American Counseling Association.

Bateman, P. J., Pike, J. C., & Butler, B. S. (2011). To disclose or not: Publicness in social networking sites. *Information Technology & People, 24,* 78–100.

Benshoff, J. M., & Gibbons, M. M. (2011). Bringing life to e-learning: Incorporating a synchronous approach to online

teaching in counselor education. *The Professional Counselor: Research and Practice, 1,* 21–28.

Chapman, R. A., Baker, S. B., Nassar-McMillan, S. C., & Gerler, E. R. (2011). Cybersupervision: Further examination of synchronous and asynchronous modalities in counseling practicum supervision. *Counselor Education & Supervision, 50,* 298–313.

Council for Accreditation of Counseling and Related Educational Programs. (n.d.). *Directory.* Retrieved from http://www.cacrep.org/directory/directory.cfm

Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (3rd ed.). Upper Saddle River, NJ: Pearson.

Derek, R. (2009). Features and benefits of online counseling: Trinity College online mental health community. *British Journal of Guidance & Counseling, 37,* 231–242.

Edison Research. (2010). *The infinite dial 2010: Digital platforms and the future of radio.* Retrieved from http://www.edisonresearch.com/The_Infinite_Dial_2010.pdf

Finn, J., & Steele, T. (2010). Online self-help/mutual aid groups in mental health practice. In L. D. Brown, & S. Wituk (Eds.), *Mental health self-help: Consumer and family initiatives* (pp. 87–106). New York, NY: Springer.

Flowers, B. P., Bray, M., Furr, S., & Algozzine, R. F. (2002). Accessibility of counseling education programs' web sites for students with disabilities. *Journal of Technology in Counseling, 2*. Retrieved from http://jtc.colstate.edu/vol2_2/flowersbray.htm

Gati, I., & Asulin-Peretz, L. (2011). Internet-based self-help career assessments and interventions: Challenges and implications for evidence-based career counseling. *Journal of Career Assessment, 19,* 259–273. doi: 10.1177/1069072710395533

Gordon, J., & Berhow, S. (2009). University websites and dialogic features for building relationships with potential students. *Public Relations Review, 35,* 150–152. doi:10.1016/j.pubrev.2008.11.003

Heinlen, K. T., Reynolds-Welfel, E., Richmond, E. N., & Rak, C. F. (2003). The scope of Web Counseling: A survey of services and compliance with NBCC standards for the ethical practice of Web Counseling. *Journal of Counseling & Development, 81,* 61–69.

Hill, L. N., & White, C. (2000). Public relations practitioners' perception of the World Wide Web as a communications tool. *Public Relations Review, 26,* 31-51. doi:10.1016/S0363-8111(00)00029-1

Kent, M. L., & Taylor, M. (1998). Building dialogic relationships through the World Wide Web. *Public Relations Review, 24,* 321–334. doi:10.1016/S0363-8111(99)80143-X

Kinka, N., & Hessa, T. (2008). Search engines as substitutes for traditional information sources? An investigation of media choice. *The Information Society, 24,* 18–29. doi: 10.1080/01972240701771630

Kittle, B., & Ciba, D. (2001). Using college web sites for student recruitment: A relationship marketing study. *Journal of Marketing for Higher Education, 11,* 17–37. doi: 10.1300/J050v11n03_02

Maddux, C., & Johnson, D. L. (1997). The World Wide Web: History, cultural context, and a manual for developers of educational information-based web sites. *Educational Technology, 37,* 5–12.

Maddux, C. D., Torres-Rivera, E., Smaby, M., & Cummings, R. (2005). Revisiting style and design elements of World Wide Web Pages dealing with multicultural counseling. *Journal of Technology in Counseling, 14*. Retrieved from http://jtc.colstate.edu/Vol4_1/Maddux/Maddux.htm

Mallen, M. J., Vogel, D. L., & Rochlen, A. B. (2005). The practical aspects of online counseling: Ethics, training, technology, and competency. *The Counseling Psychologist, 33,* 776–818. doi: 10.1177/0011000005278625

McGlothlin, J. M., West, J. D., Osborn, C. J., & Musson, J. L. (2008). A review of counselor education program websites: Recommendations for marketing counselor education programs. *Journal of Technology in Counseling, 5*. Retrieved from http://jtc.columbusstate.edu/Vol5_1/McGlothlin2.htm

Middleton, I., McConnell, M., & Davidson, G. (1999). Presenting a model for the structure and content of a university World Wide Web site. *Journal of Information Science, 25,* 219–227.

Miniwatts Marketing Group. (2011). *Internet world stats: Usage and population statistics.* Retrieved from http://www.internetworldstats.com/stats.htm

Nelson, J. A., Nichter, M., & Henriksen, R. (2010). *On-line supervision and face-to-face supervision in the counseling internship: An exploratory study of similarities and differences.* Retrieved from http://counselingoutfitters.com/vistas/vistas10/Article_46.pdf

Poock, M. C., & Bishop, A. V. (2006). Characteristics of an effective community college web site. *Community College*

Journal, 30, 687–695.

Poock, M. C., & Lefond, D. (2001). How college-bound prospects perceive university web sites: Findings, implications, and turning browsers into applicants. *College and University, 77,* 15–21.

Poock, M. & Lefond, D. (2003). Characteristics of effective graduate school Web sites: Implications for the recruitment of graduate students. *College & University Journal, 78,* 15–19.

Quartoa, C. J. (2011). Influencing college students' perceptions of videocounseling. *Journal of College Student Psychotherapy, 25,* 311–325. doi: 10.1080/87568225.2011.605694

Quinn, A. C., Hohenshil, T., & Fortune, J. (2002). Utilization of technology in CACREP approved counselor education programs. *Journal of Technology in Counseling, 2,* Retrieved from http://jtc.columbusstate.edu/vol2_2/quinn/quinn.htm

Rockinson-Szapkiw, A. J., Baker, J. D., Neukrug, E., & Hanes, J. (2010). The efficacy of computer mediated communication technologies to augment and to support effective online counselor education. *Journal of Technology in Human Services, 28,* 161–177.

Sampson, J. P., Jr. (1999). Integrating Internet-based distance guidance with services provided in career center. *The Career Development Quarterly, 47,* 243–254.

Sampson, J. P., Jr., Kolodinsky, R. W., & Greeno, B. P. (1997). Counseling on the information highway: Future possibilities and potential problems. *Journal of Counseling and Development, 75,* 203–212.

Tapscott, D., & Williams, A. D. (2008). *Wikinomics: How mass collaboration changes everything.* New York: Portfolio.

Torres-Rivera, E., Maddux, C. D., & Phan, L. (1999). An evaluation of style and design elements of counseling World Wide Web sites. *Journal of Technology in Counseling, 1*. Retrieved from http://jtc.columbusstate.edu/vol_1/multicultural.htm

Vilnai-Yavetz, I. & Tiffere, S. (2009). Images in academic Web pages as marketing tools: Meeting the challenge of service intangibility. *Journal of Relationship Marketing, 8,* 148–164. doi: 10.1080/15332660902876893

nbcc